# UNITED STATES PATENT AND TRADEMARK OFFICE

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| 09/759,153 | 01/16/2001 | Ghassan Naim | 59864.00548 | 2840 |

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| ART UNIT | PAPER NUMBER |
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| 2616 | |

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>29 March 2006</u>.

2a)☐ This action is **FINAL**.      2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-15</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-15</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>06 July 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All  b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>7/22/02, 10/25/05</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Objections*

1.    Claims 1 and 7 are objected to because of the following informalities:

In claim 1 line 7, it is suggested to change "the data queue;" to --- a data queue; -

--.

In claim 7 line 1, it is suggested to change "A method" to --- The method ---.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

2.    Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

Claim 8 recites the limitation "the lengths of data queues" in lines 9-10. There is

insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 103*

3.    The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.    This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

5.      Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang et

al. (EP 0981229 A2) in view of Yao et al. (US 6,785,262).

For claims 1, 2 and 7, Hwang et al. disclose controlling asymmetric dynamic

radio bearers in mobile packet data communications system, comprising:

monitoring the length of data queue in the first network elements as an indication

of future need of communication resources in said first network element (figure 1,

Abstract lines 14-16 and page 3, col. 4 lines 18-25);

sending the indication from the first network element (page 3, col. 4 lines 18-25

and col. 4 lines 51-53);

controlling the communication resources between the first network element and

the second network element based on this indication (Abstract lines 1-9, page 2, col. 2

line 18 to page 3 line 1).

However, Hwang et al. do not expressly disclose a controller, and wherein the

indication is a coded value of a length of the data queue. In an analogous art, Yao et al.

disclose a controller (figure 3, reference 14, col. 6 line 55), and wherein the indication is

a code value (col. 9 lines 57-59) of a length of the data queue (col. 12 lines 6-8).

Yao et al. disclose further wherein the first network element (figure 3,

reference 10) is a connected to the controller (figure 3, reference 14, col. 6 lines 54-

55) by way of the second network element (figure 3, reference 12) (col. 7 lines 27-28

as set forth in claim 2); wherein the first network element is a mobile station (figure 3,

reference 10) and the second network element is a base station (figure 3, reference

12) of a wireless communication network (col. 7 lines 27-28 as set forth in claim 7).

One skilled in the art would have recognized the controller, and wherein the

indication is a coded value of the length of the data queue, and would have applied Yao

et al.'s determine the channel quality based on the length of queue 408 in Hwang et

al.'s mobile station transmission. Therefore, it would have been obvious to one of

ordinary skill in the art at the time of the invention, to use Yao et al.'s method and

apparatus for voice latency reduction in a voice-over-data wireless communication

system in Hwang et al.'s controlling asymmetric dynamic radio bearers in mobile packet

data communications system with the motivation being to determine channel quality

(col. 12 line 1).

For claim 3, Hwang et al. disclose wherein the indication includes information about a

transmit buffer of the first network element (page 2, col. 2 lines 23-44).

For claim 4, Hwang et al. disclose wherein the indication includes information on

the additional resources needed for said first network element (figure 4, page 2, col. 2

lines 28-34 and page 5, col. 7 lines 9-36).

For claim 5, Hwang et al. disclose controlling asymmetric dynamic radio bearers

in mobile packet data communications system, comprising:

monitoring an indication of future need of communication resources in said first

network element (figure 1, page 3, col. 4 lines 18-25);

sending the indication from the first network element (page 3, col. 4 lines 18-25

and col. 4 lines 51-53);

controlling the communication resources between the first network element and

the second network element based on this indication (Abstract lines 1-9, page 2, col. 2

line 18 to page 3 line 1), and

wherein the indication includes information about a transmit buffer of the first

network element (figure 4, page 2, col. 2 lines 28-34 and page 5, col. 7 lines 9-36).

However, Hwang et al. do not explicitly disclose a controller, and wherein the

controller is separate and independent from the first network element, wherein the

indication includes coded value corresponding to predefined resources. In an analogous

art, Yao et al. disclose a controller (figure 3, reference 14, col. 6 line 55), and wherein

the controller (figure 3, reference 14, col. 6 lines 54-55) is separate and independent

from the first network element (figure 3, reference 10) (col. 7 lines 27-31), wherein the

indication includes coded value (col. 9 lines 57-59) corresponding to predefined

resources (col. 12 lines 6-13).

One skilled in the art would have recognized the controller, and wherein the

controller is separate and independent from the first network element, wherein the

indication includes coded value corresponding to predefined resources, and would have

applied Yao et al.'s determine the channel quality based on the length of queue 408 in

Hwang et al.'s mobile station transmission. Therefore, it would have been obvious to

one of ordinary skill in the art at the time of the invention, to use Yao et al.'s method and

apparatus for voice latency reduction in a voice-over-data wireless communication

system in Hwang et al.'s controlling asymmetric dynamic radio bearers in mobile packet

data communications system with the motivation being to determine channel quality

(col. 12 line 1).

For claim 6, Hwang et al. disclose wherein the indication includes information

about a transmit buffer of the first network element (figure 4, page 2, col. 2 lines 28-34

and page 5, col. 7 lines 9-36).

6.    Claims 8-10, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Yao et al. (US 6,785,262) in view of Hwang et al. (EP 0981229 A2).

For claim 8, Yao et al. disclose method and apparatus for voice latency reduction

in a voice-over-data wireless communication system, comprising:

a plurality of first stations (figure 3, reference 10, col. 7 line 2);

a second station (figure 3, reference 12) connected to said plurality of first

stations (figure 3, reference 10) through a plurality of communication links (col. 7 lines

27-28);

a controller (figure 3, reference 14) for controlling the allocation of said communication

resources among the links, the controller being separate and independent from the first

station (col. 7 lines 31-32),

wherein the information is a coded value (col. 9 lines 57-59) of the lengths of the data

queues (col. 12 lines 6-8).

However, Yao et al. do not expressly disclose said allocation being performed in

accordance with information transmitted from the first stations which indicates a need

for communication resources based upon the lengths of data queues in the first stations. In

an analogous art, Hwang et al. disclose said allocation being performed in accordance

with information transmitted from the first stations which indicates a need for

communication resources based upon the lengths of data queues in the first stations (figure

1, Abstract lines 14-16, and page 3, col. 4 lines 18-25).

One skilled in the art would have recognized said allocation being performed in

accordance with information transmitted from the first stations which indicates a need

for communication resources based upon the lengths of data queues in the first stations, and

would have applied Hwang et al.'s mobile station transmission in Yao et al.'s determine

the channel quality based on the length of queue 408. Therefore, it would have been

obvious to one of ordinary skill in the art at the time of the invention, to use Hwang et

al.'s controlling asymmetric dynamic radio bearers in mobile packet data

communications system in Yao et al.'s method and apparatus for voice latency

reduction in a voice-over-data wireless communication system with the motivation being

requested radio service (page 3, col. 4 line 20).

For claim 9, Yao et al. disclose wherein said controller (figure 3, reference 14) is part

of said base station (figure 3, reference 12) (col. 7 lines 29-31).

For claim 10, Yao et al. disclose wherein said first stations are mobile stations in

a wireless network (figure 3, reference 10, col. 7 line 28).

For claim 12, Yao et al. disclose a decoder (figure 6, reference 614) for decoding

a field of said data and producing an indication of the data queue in an associated first

station (figure 3, reference 10)(col. 13 line 54);

wherein said controller (figure 3, reference 14) receives said information from said

decoder and allocates communication resources in accordance therewith (col. 7 lines 29-

32).

For claim 13, Yao et al. disclose wherein said indication is provided for each data

block transmitted (col. 12 lines 2-5).

7.      Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yao et

al. (US 6,785,262) in view of Hwang et al. (EP 0981229 A2) further in view of Ishida et

al. (US 6,975,604).

For claim 11, Yao et al. disclose:

a data queue (figure 4, reference 408, col. 9 line 18);

an encoder for generating a code representative of the length of the data queue (col.

9 line 17).

a transmitter (figure 4, reference 420) for transmitting said data with said code

included therein as a field (col. 9 lines 17-20).

However, Yao et al. in view of Hwang et al. do not expressly disclose a data

generator. In an analogous art, Ishida et al. disclose a data generator (figure 6,

reference 617);

One skilled in the art would have recognized the data generator, and would have

applied Ishida et al.'s mobile station in Yao et al.'s determine the channel quality based

on the length of queue 408. Therefore, it would have been obvious to one of ordinary

skill in the art at the time of the invention, to use Ishida et al.'s base station controller

and mobile station in Yao et al.'s method and apparatus for voice latency reduction in

a voice-over-data wireless communication system with the motivation being to

generate data into frames (col. 8 lines 58-60).

8.      Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yao et

al. (US 6,785,262).

For claim 14, Yao et al. disclose method and apparatus for voice latency reduction

in a voice-over-data wireless communication system, comprising:

a receiver (figure 6, reference 602, col. 13 line 38); and

a decoder (figure 6, reference 614) for decoding a data queue in at least one

mobile station (col. 13 lines 55-57); and

a controller (figure 3, reference 14) for controlling allocation of communication

resources (col. 7 line 32),

wherein said decoder (figure 6, reference 614) provides information for the at least

one mobile station (figure 3, reference 10) to the controller (col. 7 lines 27-32).

However, Yao et al. do not expressly disclose decoding a code representative of a

length of the data queue in at least one mobile station. To include the decoding a code

representative of a length of a data queue in at least one mobile station would have been

obvious to one of ordinary skill in the art because the decoder 614 would decode the data

frames generated by the voice encoder 406 based on the length of queue 408 (a code

representative of a length of the data queue in at least one mobile station means).

9.      Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yao et

al. (US 6,785,262) in view of Ishida et al. (US 6,975,604).

For claim 15, Yao et al. disclose method and apparatus for voice latency

reduction in a voice-over-data wireless communication system, comprising:

a data queue (figure 4, reference 408, col. 9 line 18);

an encoder (figure 4, reference 406) for generating a code (col. 9 lines 57-59)

representative of the length of the data queue (col. 9 line 17 and col. 12 lines 6-13).

a transmitter (figure 4, reference 420) for transmitting said data with said code

included therein as a field (col. 9 lines 17-20).

However, Yao et al. do not expressly disclose a data generator. In an

analogous art, Ishida et al. disclose a data generator (figure 6, reference 617);

One skilled in the art would have recognized the data generator, and would have

applied Ishida et al.'s mobile station in Yao et al.'s determine the channel quality based

on the length of queue 408. Therefore, it would have been obvious to one of ordinary

skill in the art at the time of the invention, to use Ishida et al.'s base station controller

and mobile station in Yao et al.'s method and apparatus for voice latency reduction in

a voice-over-data wireless communication system with the motivation being to

generate data into frames (col. 8 lines 58-60).

### Response to Arguments

10.    Applicant's arguments with respect to claims 1-15 have been considered but are

moot in view of the new ground(s) of rejection.

11.    Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Toan D. Nguyen whose telephone number is 571-272-

3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mr. Huy Vu can be reached on 571-272-3155. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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